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Derwent Title: Tilt mechanism for chair, has reaction force mechanism which changes direction which compresses coil spring with respect to tangent direction when back reclining arm leans backward to rotate back reclining arm

Original Title: ☒ JP2003225136A2: CHAIR

Assignee: KUNIHON CO LTD Non-standard company  
KOKUYO KK Standard company  
Other publications from KOKUYO KK (KOKV)...

Inventor: None

Accession/Update: 2003-612195 / 200374

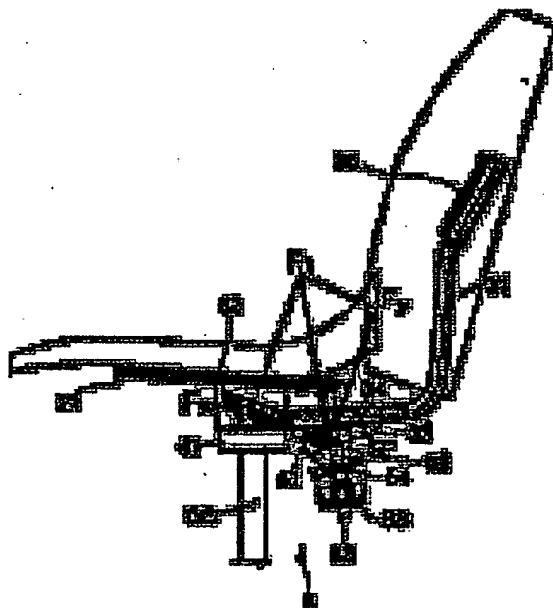
IPC Code: A47C 1/00 ; A47C 7/34 ; A47C 1/024 ; A47C 1/032 ;  
A47C 7/40 ;

Derwent Classes: P26:

Derwent Abstract: (JP2003225136A2) Novelty - A reaction force mechanism (5) changes the direction which compresses a coil spring (SP) with respect to the tangent direction, when a back reclining arm (31) leans backward, to rotate the back reclining arm. A base member (21) is attached to the upper portion of a leg. The coil spring is arranged between a spring power transmission member (53).  
Use - For chair.

Advantage - Improves freedom in designing comfortable chair without changing fundamental system in tilting the back reclining arm.

Images:



Description of Drawing(s) - The figure shows the side view of a chair. Reaction force mechanism 5, Base member 21, Back reclining arm 31, Spring power transmission member 53, Coil spring SP [Dwg. 4/7](#)

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PDF Patent	Pub. Date	Update	Pages	Language	IPC Code
<input checked="" type="checkbox"/> JP2003225136A2 *	2003-08-12	200358	9	English	A47C 7/34

Local appls.:

<input checked="" type="checkbox"/> CN1436501A =	2003-08-20	200374	English	A47C 1/00
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Local appls.: CN2002000128896 Filed:2002-08-20 (2002CN-0128896)

☒ INPADOC Legal Status: None

☒ Priority Number:

Application Number	Filed	Original Title
JP2002000028547	2002-02-05	CHAIR

☒ Title Terms: TILT MECHANISM CHAIR REACT FORCE MECHANISM CHANGE  
DIRECTION COMPRESS COIL SPRING RESPECT TANGENT DIRECTION  
BACK RECLINING ARM LEAN BACKWARD ROTATING BACK RECLINING  
ARM

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Derwent Title: Tilt mechanism for chair, has reaction force mechanism which changes direction which compresses coil spring with respect to tangent direction when back reclining arm leans backward to rotate back reclining arm  
[Derwent Record]

Country: **JP Japan**Kind: **A2 Document Laid open to Public inspection i**

Inventor: **MURAKAMI TOMOKAZU;**  
**NISHIMURA KAYOKO;**

Assignee: **KOKUYO CO LTD**  
News, Profiles, Stocks and More about this company

Published / Filed: **2003-08-12 / 2002-02-05**

Application Number: **JP2002000028547**

IPC Code: **A47C 7/34; A47C 1/032;**Priority Number: **2002-02-05 JP2002000028547**

Abstract: **PROBLEM TO BE SOLVED:** To solve the problem in a chair having a conventional tilt mechanism that a large force is required to largely tilt a backrest backward, namely the backrest can be largely tilted backward only by not only applying the body weight but also using the muscles, or a petite person or light women cannot take a satisfactorily backward tilted stance.

**SOLUTION:** In this chair having a structure for compressing a coil spring in the backward tilting of a backrest arm, the direction of compressing the coil spring is gradually changed relatively to the tangential direction of the rotation of the part receiving the action of the spring force on the backrest arm according to the backward tilting of the backrest arm. According to such a structure, since the coil spring is compressed to increase the total reaction of the coil spring according to the backward tilting of the backrest arm, while the direction of the total reaction of the coil spring is gradually shifted to the rotating direction of the backrest arm, the degree of compression of the coil spring and the shifting manner in the backward tilting of the backrest arm are set, whereby the magnitude of the effective component of the reaction of returning the backrest arm to a raised attitude of the coil spring can be properly controlled.

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INPADOC: **None**Buy Now: Family Legal Status Report

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Family: Show 2 known family members

Other Abstract Info: DERABS C2003-612195

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